

Project: Rio Blanco County, CO  
 Site: ELU O13 496 Pad  
 Well: ELU O13 FED 21A-24 496  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.698664  
 Longitude: -108.115190  
 Ground Level: 8118.0  
 RKB @ 8148.0usft (30')

PROJECT DETAILS: Rio Blanco County, CO

Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 - Western US  
 Ellipsoid: Clarke 1866  
 Zone: Zone 12N (114 W to 108 W)  
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Vertical (TVD) Reference: RKB @ 8148.0usft (30')  
 Section (VS) Reference: Slot - ELU O13 FED 21A-24 496(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8148.0usft (30')  
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3955.0	4037.9	Wasatch
6355.0	6496.4	Wasatch G
6655.0	6803.8	Fort Union
8619.0	8808.9	Ohio Creek / TOG
9121.0	9311.0	Williams Fork
12067.0	12257.9	Cameo
12567.0	12758.1	Rollins

SECTION DETAILS

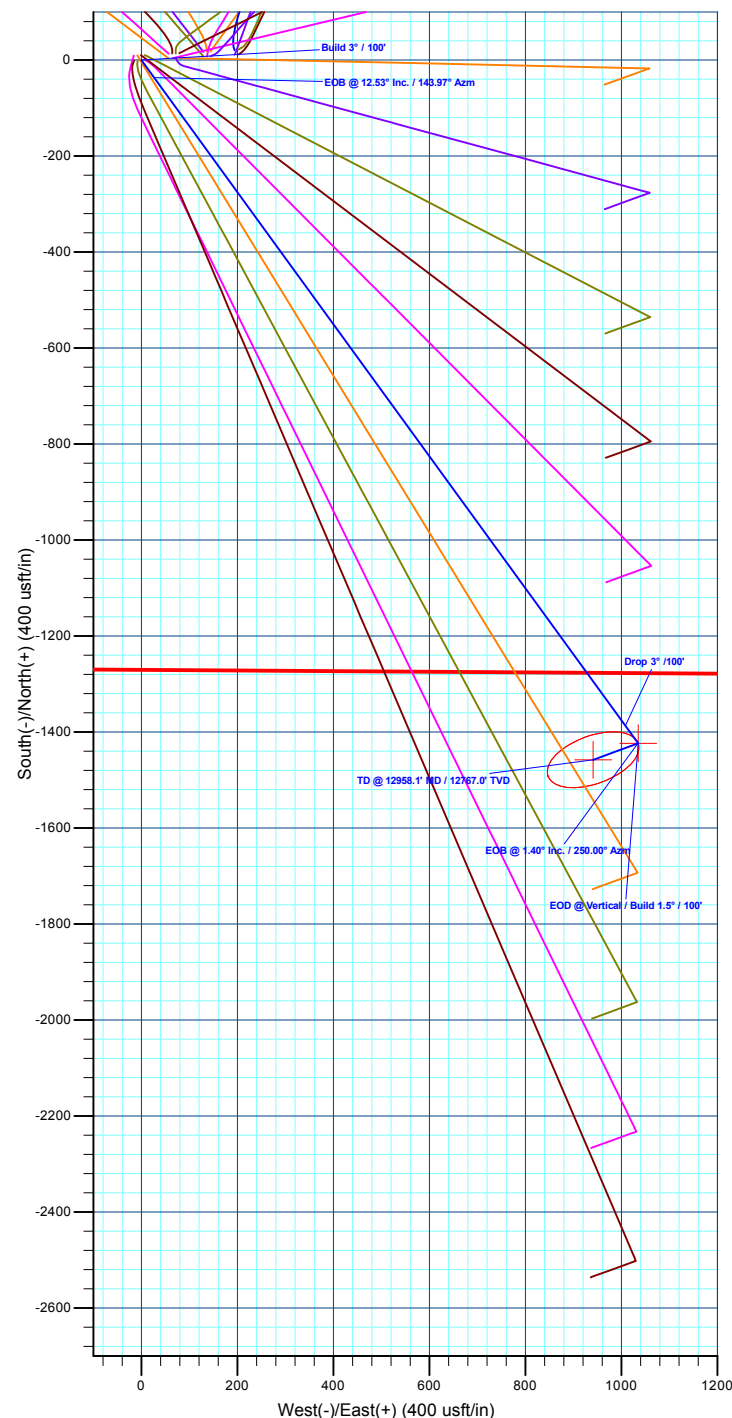
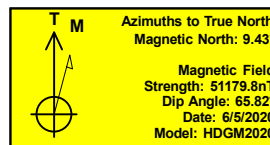
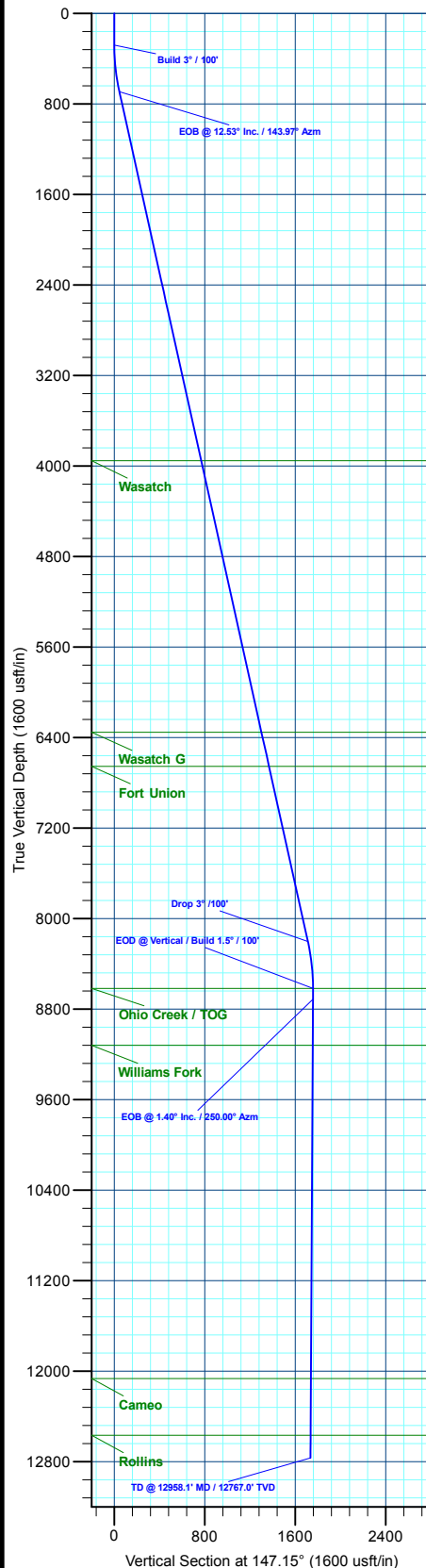
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
280.0	0.00	0.00	280.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
697.7	12.53	143.97	694.4	-36.8	26.8	3.00	143.97	45.4	EOB @ 12.53° Inc. / 143.97° Azm
8391.2	12.53	143.97	8204.6	-1386.7	1008.5	0.00	0.00	1712.0	Drop 3° / 100'
8808.9	0.00	0.00	8619.0	-1423.5	1035.3	3.00	180.00	1757.5	EOD @ Vertical / Build 1.5° / 100'
8902.0	1.40	250.00	8712.1	-1423.9	1034.2	1.50	250.00	1757.2	EOB @ 1.40° Inc. / 250.00° Azm
12958.1	1.40	250.00	12767.0	-1457.7	941.3	0.00	0.00	1735.2	TD @ 12958.1° MD / 12767.0° TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 21A-24	8619.0	-1423.5	1035.3	14427986.51	2453015.82	39.694757	-108.111513
PBHL - 21A-24	12767.0	-1457.7	941.3	14427949.30	2452923.00	39.694663	-108.111847

WELL DETAILS: ELU O13 FED 21A-24 496

+N/-S	+E/-W	Ground Level : 8118.0	Latitude	Longitude
0.0	0.0	Northing 14429376.00 Easting 2451935.30	39.698664	-108.115190



Plan: Design #1 (ELU O13 FED 21A-24 496/Wellbore #1)

Created By: Will Jircik

Date: 11:12, June 19 2020



## **Caerus Oil & Gas**

**Rio Blanco County, CO**

**ELU O13 496 Pad**

**ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**19 June, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21A-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Rio Blanco County, CO		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	ELU O13 496 Pad		
<b>Site Position:</b>		<b>Northing:</b>	14,429,398.00 usft
<b>From:</b>	Map	<b>Easting:</b>	2,452,071.40 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.698712
		<b>Longitude:</b>	-108.114705
		<b>Grid Convergence:</b>	1.84 °

<b>Well</b>	ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496		
<b>Well Position</b>	<b>+N/-S</b>	-17.6 usft	<b>Northing:</b>
	<b>+E/-W</b>	-136.7 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2020	6/5/2020	9.43	65.82	51,179.80000000

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	147.15	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
280.0	0.00	0.00	280.0	0.0	0.0	0.00	0.00	0.00	0.00	
697.7	12.53	143.97	694.4	-36.8	26.8	3.00	3.00	0.00	143.97	
8,391.2	12.53	143.97	8,204.6	-1,386.7	1,008.5	0.00	0.00	0.00	0.00	
8,808.9	0.00	0.00	8,619.0	-1,423.5	1,035.3	3.00	-3.00	0.00	180.00	OHCR - 21A-24
8,902.0	1.40	250.00	8,712.1	-1,423.9	1,034.2	1.50	1.50	-118.14	250.00	
12,958.1	1.40	250.00	12,767.0	-1,457.7	941.3	0.00	0.00	0.00	0.00	PBHL - 21A-24

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21A-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Build 3° / 100'</b>									
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.60	143.97	300.0	-0.1	0.1	0.1	3.00	3.00	0.00
400.0	3.60	143.97	399.9	-3.0	2.2	3.8	3.00	3.00	0.00
500.0	6.60	143.97	499.5	-10.2	7.4	12.6	3.00	3.00	0.00
600.0	9.60	143.97	598.5	-21.6	15.7	26.7	3.00	3.00	0.00
<b>EOB @ 12.53° Inc. / 143.97° Azm</b>									
697.7	12.53	143.97	694.4	-36.8	26.8	45.4	3.00	3.00	0.00
700.0	12.53	143.97	696.6	-37.2	27.1	45.9	0.00	0.00	0.00
800.0	12.53	143.97	794.2	-54.7	39.8	67.6	0.00	0.00	0.00
900.0	12.53	143.97	891.9	-72.3	52.6	89.2	0.00	0.00	0.00
1,000.0	12.53	143.97	989.5	-89.8	65.3	110.9	0.00	0.00	0.00
1,100.0	12.53	143.97	1,087.1	-107.4	78.1	132.6	0.00	0.00	0.00
1,200.0	12.53	143.97	1,184.7	-124.9	90.9	154.2	0.00	0.00	0.00
1,300.0	12.53	143.97	1,282.3	-142.5	103.6	175.9	0.00	0.00	0.00
1,400.0	12.53	143.97	1,379.9	-160.0	116.4	197.6	0.00	0.00	0.00
1,500.0	12.53	143.97	1,477.6	-177.6	129.1	219.2	0.00	0.00	0.00
1,600.0	12.53	143.97	1,575.2	-195.1	141.9	240.9	0.00	0.00	0.00
1,700.0	12.53	143.97	1,672.8	-212.7	154.7	262.6	0.00	0.00	0.00
1,800.0	12.53	143.97	1,770.4	-230.2	167.4	284.2	0.00	0.00	0.00
1,900.0	12.53	143.97	1,868.0	-247.8	180.2	305.9	0.00	0.00	0.00
2,000.0	12.53	143.97	1,965.7	-265.3	192.9	327.5	0.00	0.00	0.00
2,100.0	12.53	143.97	2,063.3	-282.8	205.7	349.2	0.00	0.00	0.00
2,200.0	12.53	143.97	2,160.9	-300.4	218.5	370.9	0.00	0.00	0.00
2,300.0	12.53	143.97	2,258.5	-317.9	231.2	392.5	0.00	0.00	0.00
2,400.0	12.53	143.97	2,356.1	-335.5	244.0	414.2	0.00	0.00	0.00
2,500.0	12.53	143.97	2,453.7	-353.0	256.7	435.9	0.00	0.00	0.00
2,600.0	12.53	143.97	2,551.4	-370.6	269.5	457.5	0.00	0.00	0.00
2,700.0	12.53	143.97	2,649.0	-388.1	282.3	479.2	0.00	0.00	0.00
2,800.0	12.53	143.97	2,746.6	-405.7	295.0	500.8	0.00	0.00	0.00
2,900.0	12.53	143.97	2,844.2	-423.2	307.8	522.5	0.00	0.00	0.00
3,000.0	12.53	143.97	2,941.8	-440.8	320.5	544.2	0.00	0.00	0.00
3,100.0	12.53	143.97	3,039.5	-458.3	333.3	565.8	0.00	0.00	0.00
3,200.0	12.53	143.97	3,137.1	-475.9	346.1	587.5	0.00	0.00	0.00
3,300.0	12.53	143.97	3,234.7	-493.4	358.8	609.2	0.00	0.00	0.00
3,400.0	12.53	143.97	3,332.3	-511.0	371.6	630.8	0.00	0.00	0.00
3,500.0	12.53	143.97	3,429.9	-528.5	384.3	652.5	0.00	0.00	0.00
3,600.0	12.53	143.97	3,527.5	-546.0	397.1	674.1	0.00	0.00	0.00
3,700.0	12.53	143.97	3,625.2	-563.6	409.9	695.8	0.00	0.00	0.00
3,800.0	12.53	143.97	3,722.8	-581.1	422.6	717.5	0.00	0.00	0.00
3,900.0	12.53	143.97	3,820.4	-598.7	435.4	739.1	0.00	0.00	0.00
4,000.0	12.53	143.97	3,918.0	-616.2	448.2	760.8	0.00	0.00	0.00
<b>Wasatch</b>									
4,037.9	12.53	143.97	3,955.0	-622.9	453.0	769.0	0.00	0.00	0.00
4,100.0	12.53	143.97	4,015.6	-633.8	460.9	782.5	0.00	0.00	0.00
4,200.0	12.53	143.97	4,113.3	-651.3	473.7	804.1	0.00	0.00	0.00
4,300.0	12.53	143.97	4,210.9	-668.9	486.4	825.8	0.00	0.00	0.00
4,400.0	12.53	143.97	4,308.5	-686.4	499.2	847.4	0.00	0.00	0.00
4,500.0	12.53	143.97	4,406.1	-704.0	512.0	869.1	0.00	0.00	0.00
4,600.0	12.53	143.97	4,503.7	-721.5	524.7	890.8	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21A-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	12.53	143.97	4,601.3	-739.1	537.5	912.4	0.00	0.00	0.00
4,800.0	12.53	143.97	4,699.0	-756.6	550.2	934.1	0.00	0.00	0.00
4,900.0	12.53	143.97	4,796.6	-774.2	563.0	955.8	0.00	0.00	0.00
5,000.0	12.53	143.97	4,894.2	-791.7	575.8	977.4	0.00	0.00	0.00
5,100.0	12.53	143.97	4,991.8	-809.2	588.5	999.1	0.00	0.00	0.00
5,200.0	12.53	143.97	5,089.4	-826.8	601.3	1,020.7	0.00	0.00	0.00
5,300.0	12.53	143.97	5,187.1	-844.3	614.0	1,042.4	0.00	0.00	0.00
5,400.0	12.53	143.97	5,284.7	-861.9	626.8	1,064.1	0.00	0.00	0.00
5,500.0	12.53	143.97	5,382.3	-879.4	639.6	1,085.7	0.00	0.00	0.00
5,600.0	12.53	143.97	5,479.9	-897.0	652.3	1,107.4	0.00	0.00	0.00
5,700.0	12.53	143.97	5,577.5	-914.5	665.1	1,129.1	0.00	0.00	0.00
5,800.0	12.53	143.97	5,675.1	-932.1	677.8	1,150.7	0.00	0.00	0.00
5,900.0	12.53	143.97	5,772.8	-949.6	690.6	1,172.4	0.00	0.00	0.00
6,000.0	12.53	143.97	5,870.4	-967.2	703.4	1,194.0	0.00	0.00	0.00
6,100.0	12.53	143.97	5,968.0	-984.7	716.1	1,215.7	0.00	0.00	0.00
6,200.0	12.53	143.97	6,065.6	-1,002.3	728.9	1,237.4	0.00	0.00	0.00
6,300.0	12.53	143.97	6,163.2	-1,019.8	741.6	1,259.0	0.00	0.00	0.00
6,400.0	12.53	143.97	6,260.9	-1,037.4	754.4	1,280.7	0.00	0.00	0.00
<b>Wasatch G</b>									
6,496.4	12.53	143.97	6,355.0	-1,054.3	766.7	1,301.6	0.00	0.00	0.00
6,500.0	12.53	143.97	6,358.5	-1,054.9	767.2	1,302.4	0.00	0.00	0.00
6,600.0	12.53	143.97	6,456.1	-1,072.4	779.9	1,324.0	0.00	0.00	0.00
6,700.0	12.53	143.97	6,553.7	-1,090.0	792.7	1,345.7	0.00	0.00	0.00
6,800.0	12.53	143.97	6,651.3	-1,107.5	805.5	1,367.3	0.00	0.00	0.00
<b>Fort Union</b>									
6,803.8	12.53	143.97	6,655.0	-1,108.2	805.9	1,368.2	0.00	0.00	0.00
6,900.0	12.53	143.97	6,748.9	-1,125.1	818.2	1,389.0	0.00	0.00	0.00
7,000.0	12.53	143.97	6,846.6	-1,142.6	831.0	1,410.7	0.00	0.00	0.00
7,100.0	12.53	143.97	6,944.2	-1,160.2	843.7	1,432.3	0.00	0.00	0.00
7,200.0	12.53	143.97	7,041.8	-1,177.7	856.5	1,454.0	0.00	0.00	0.00
7,300.0	12.53	143.97	7,139.4	-1,195.3	869.3	1,475.7	0.00	0.00	0.00
7,400.0	12.53	143.97	7,237.0	-1,212.8	882.0	1,497.3	0.00	0.00	0.00
7,500.0	12.53	143.97	7,334.7	-1,230.4	894.8	1,519.0	0.00	0.00	0.00
7,600.0	12.53	143.97	7,432.3	-1,247.9	907.5	1,540.6	0.00	0.00	0.00
7,700.0	12.53	143.97	7,529.9	-1,265.5	920.3	1,562.3	0.00	0.00	0.00
7,800.0	12.53	143.97	7,627.5	-1,283.0	933.1	1,584.0	0.00	0.00	0.00
7,900.0	12.53	143.97	7,725.1	-1,300.6	945.8	1,605.6	0.00	0.00	0.00
8,000.0	12.53	143.97	7,822.7	-1,318.1	958.6	1,627.3	0.00	0.00	0.00
8,100.0	12.53	143.97	7,920.4	-1,335.6	971.3	1,649.0	0.00	0.00	0.00
8,200.0	12.53	143.97	8,018.0	-1,353.2	984.1	1,670.6	0.00	0.00	0.00
8,300.0	12.53	143.97	8,115.6	-1,370.7	996.9	1,692.3	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
8,391.2	12.53	143.97	8,204.6	-1,386.7	1,008.5	1,712.0	0.00	0.00	0.00
8,400.0	12.27	143.97	8,213.2	-1,388.3	1,009.6	1,713.9	3.00	-3.00	0.00
8,500.0	9.27	143.97	8,311.4	-1,403.4	1,020.6	1,732.6	3.00	-3.00	0.00
8,600.0	6.27	143.97	8,410.5	-1,414.3	1,028.5	1,746.1	3.00	-3.00	0.00
8,700.0	3.27	143.97	8,510.2	-1,421.0	1,033.4	1,754.4	3.00	-3.00	0.00
<b>EOD @ Vertical / Build 1.5° / 100' - Ohio Creek / TOG</b>									
8,808.9	0.00	0.00	8,619.0	-1,423.5	1,035.3	1,757.5	3.00	-3.00	0.00
<b>EOB @ 1.40° Inc. / 250.00° Azm</b>									
8,902.0	1.40	250.00	8,712.1	-1,423.9	1,034.2	1,757.2	1.50	1.50	0.00
9,000.0	1.40	250.00	8,810.1	-1,424.7	1,031.9	1,756.7	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21A-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,100.0	1.40	250.00	8,910.0	-1,425.6	1,029.7	1,756.1	0.00	0.00	0.00
9,200.0	1.40	250.00	9,010.0	-1,426.4	1,027.4	1,755.6	0.00	0.00	0.00
9,300.0	1.40	250.00	9,110.0	-1,427.2	1,025.1	1,755.1	0.00	0.00	0.00
<b>Williams Fork</b>									
9,311.0	1.40	250.00	9,121.0	-1,427.3	1,024.8	1,755.0	0.00	0.00	0.00
9,400.0	1.40	250.00	9,209.9	-1,428.1	1,022.8	1,754.5	0.00	0.00	0.00
9,500.0	1.40	250.00	9,309.9	-1,428.9	1,020.5	1,754.0	0.00	0.00	0.00
9,600.0	1.40	250.00	9,409.9	-1,429.7	1,018.2	1,753.4	0.00	0.00	0.00
9,700.0	1.40	250.00	9,509.9	-1,430.6	1,015.9	1,752.9	0.00	0.00	0.00
9,800.0	1.40	250.00	9,609.8	-1,431.4	1,013.6	1,752.3	0.00	0.00	0.00
9,900.0	1.40	250.00	9,709.8	-1,432.2	1,011.3	1,751.8	0.00	0.00	0.00
10,000.0	1.40	250.00	9,809.8	-1,433.1	1,009.0	1,751.3	0.00	0.00	0.00
10,100.0	1.40	250.00	9,909.7	-1,433.9	1,006.8	1,750.7	0.00	0.00	0.00
10,200.0	1.40	250.00	10,009.7	-1,434.7	1,004.5	1,750.2	0.00	0.00	0.00
10,300.0	1.40	250.00	10,109.7	-1,435.6	1,002.2	1,749.6	0.00	0.00	0.00
10,400.0	1.40	250.00	10,209.6	-1,436.4	999.9	1,749.1	0.00	0.00	0.00
10,500.0	1.40	250.00	10,309.6	-1,437.2	997.6	1,748.6	0.00	0.00	0.00
10,600.0	1.40	250.00	10,409.6	-1,438.1	995.3	1,748.0	0.00	0.00	0.00
10,700.0	1.40	250.00	10,509.6	-1,438.9	993.0	1,747.5	0.00	0.00	0.00
10,800.0	1.40	250.00	10,609.5	-1,439.7	990.7	1,746.9	0.00	0.00	0.00
10,900.0	1.40	250.00	10,709.5	-1,440.6	988.4	1,746.4	0.00	0.00	0.00
11,000.0	1.40	250.00	10,809.5	-1,441.4	986.1	1,745.8	0.00	0.00	0.00
11,100.0	1.40	250.00	10,909.4	-1,442.2	983.8	1,745.3	0.00	0.00	0.00
11,200.0	1.40	250.00	11,009.4	-1,443.1	981.6	1,744.8	0.00	0.00	0.00
11,300.0	1.40	250.00	11,109.4	-1,443.9	979.3	1,744.2	0.00	0.00	0.00
11,400.0	1.40	250.00	11,209.3	-1,444.7	977.0	1,743.7	0.00	0.00	0.00
11,500.0	1.40	250.00	11,309.3	-1,445.6	974.7	1,743.1	0.00	0.00	0.00
11,600.0	1.40	250.00	11,409.3	-1,446.4	972.4	1,742.6	0.00	0.00	0.00
11,700.0	1.40	250.00	11,509.3	-1,447.2	970.1	1,742.1	0.00	0.00	0.00
11,800.0	1.40	250.00	11,609.2	-1,448.1	967.8	1,741.5	0.00	0.00	0.00
11,900.0	1.40	250.00	11,709.2	-1,448.9	965.5	1,741.0	0.00	0.00	0.00
12,000.0	1.40	250.00	11,809.2	-1,449.8	963.2	1,740.4	0.00	0.00	0.00
12,100.0	1.40	250.00	11,909.1	-1,450.6	960.9	1,739.9	0.00	0.00	0.00
12,200.0	1.40	250.00	12,009.1	-1,451.4	958.7	1,739.3	0.00	0.00	0.00
<b>Cameo</b>									
12,257.9	1.40	250.00	12,067.0	-1,451.9	957.3	1,739.0	0.00	0.00	0.00
12,300.0	1.40	250.00	12,109.1	-1,452.3	956.4	1,738.8	0.00	0.00	0.00
12,400.0	1.40	250.00	12,209.1	-1,453.1	954.1	1,738.3	0.00	0.00	0.00
12,500.0	1.40	250.00	12,309.0	-1,453.9	951.8	1,737.7	0.00	0.00	0.00
12,600.0	1.40	250.00	12,409.0	-1,454.8	949.5	1,737.2	0.00	0.00	0.00
12,700.0	1.40	250.00	12,509.0	-1,455.6	947.2	1,736.6	0.00	0.00	0.00
<b>Rollins</b>									
12,758.1	1.40	250.00	12,567.0	-1,456.1	945.9	1,736.3	0.00	0.00	0.00
12,800.0	1.40	250.00	12,608.9	-1,456.4	944.9	1,736.1	0.00	0.00	0.00
12,900.0	1.40	250.00	12,708.9	-1,457.3	942.6	1,735.5	0.00	0.00	0.00
<b>TD @ 12958.1' MD / 12767.0' TVD</b>									
12,958.1	1.40	250.00	12,767.0	-1,457.7	941.3	1,735.2	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELU O13 FED 21A-24 496 - Slot ELU O13 FED 21A-24 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8148.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 8148.0usft (30')
<b>Site:</b>	ELU O13 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ELU O13 FED 21A-24 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

#### Design Targets

##### Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
OHCR - 21A-24 - plan hits target center - Point	0.00	0.00	8,619.0	-1,423.5	1,035.3	14,427,986.51	2,453,015.82	39.694757	-108.111513
PBHL - 21A-24 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,767.0	-1,457.7	941.3	14,427,949.30	2,452,923.00	39.694663	-108.111847

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,037.9	3,955.0	Wasatch			
6,496.4	6,355.0	Wasatch G			
6,803.8	6,655.0	Fort Union			
8,808.9	8,619.0	Ohio Creek / TOG			
9,311.0	9,121.0	Williams Fork			
12,257.9	12,067.0	Cameo			
12,758.1	12,567.0	Rollins			

#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
280.0	280.0	0.0	0.0	Build 3° / 100'
697.7	694.4	-36.8	26.8	EOB @ 12.53° Inc. / 143.97° Azm
8,391.2	8,204.6	-1,386.7	1,008.5	Drop 3° / 100'
8,808.9	8,619.0	-1,423.5	1,035.3	EOD @ Vertical / Build 1.5° / 100'
8,902.0	8,712.1	-1,423.9	1,034.2	EOB @ 1.40° Inc. / 250.00° Azm
12,958.1	12,767.0	-1,457.7	941.3	TD @ 12958.1' MD / 12767.0' TVD